

REMARKS

This paper is in response to the Office Action of April 7, 2005. The due date for response extends to July 7, 2005.

The Examiner is thanked for his very careful review of the pending application and its claims.

Claims 1 through 19 are pending in this application. Claim 10 is cancelled by this amendment.

The Examiner objected to claims 1, 2, 3, 4, 9, 14, 16, and 19 because of various informalities. Although applicant agrees with many of the suggested changes and has made them, several of them seem to introduce grammatical irregularities that detract from the clarity of the claim and have not been made. These include the proposed changes to claim 4, line 7, claim 9, line 2 (both suggested changes), claim 14, line 1, claim 16, line 1 and claim 19, line 1. These matters were discussed with the Examiner's supervisor, Examiner Smith, on 29 April 2005. The applicant respectfully requests that the Examiner reconsider these proposed changes and withdraw the remaining objections to these claims.

Claims 4, 5, 10 and 11 are rejected under 35 U.S.C. 102(e) as being unpatentable over U. S. Patent Application No. 2003/0188268 to G. K. Konstadinidis, et al. (Konstadinidis). Konstadinidis describes a system wherein the replacement of normal transistors with transistors with a lower threshold voltage is systematized and automated. As the design techniques and methods needed to make transistors with lower threshold voltages were known long before Konstadinidis' application was filed, Konstadinidis' invention is distinguished by how the design process can efficiently incorporate lower threshold voltage transistors. Nothing in Konstadinidis discusses designing different transistors with same threshold voltage, wherein each different transistor was adapted for a different manufacturing environment.

Applicant also takes exception to the Examiner's statement with respect to claim 10 that controlling threshold voltage levels of transistors is a manufacturing problem to be solved. Varying transistor designs to either increase or decrease their threshold voltage is well known in the art, as are the various design compromises imposed by transistors with different threshold voltages. This is not related to the manufacturing problems described in this specification and used to distinguish the present invention from Konstadinidis.


The present invention requires that a plurality of standard cell variants, each variant designed to compensate for a particular problem in a single manufacturing environment, be available during the design process. The variant that addresses the particular problems of the manufacturing process that will be used to make the ICs is selected and the standard cell designs therein are used. Claim 4 has been amended to include the limitation that the design variants are each respectively adapted to compensate for at least a particular problem in a single manufacturing environment. Nothing in Konstadinidis suggests the need for such variants or provides any teaching for their creation. Amended claim 4 is thus not anticipated by Konstadinidis nor does Konstadinidis make the claim obvious in any way by its teachings.

As claims 5 through 9 and 11 through 13 depend either directly or indirectly from claim 4, they should all now be considered allowable.

A Notice of Allowance for all pending claims is respectfully requested.

If the Examiner has any questions concerning the present amendment, the Examiner is kindly requested to contact the undersigned at (408) 749-6903. If any other fees are due in connection with filing this amendment, the Commissioner is also authorized to charge Deposit Account No. 50-0805 (Order No. ARTCP047). A duplicate copy of the transmittal is enclosed for this purpose.

Respectfully submitted,
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